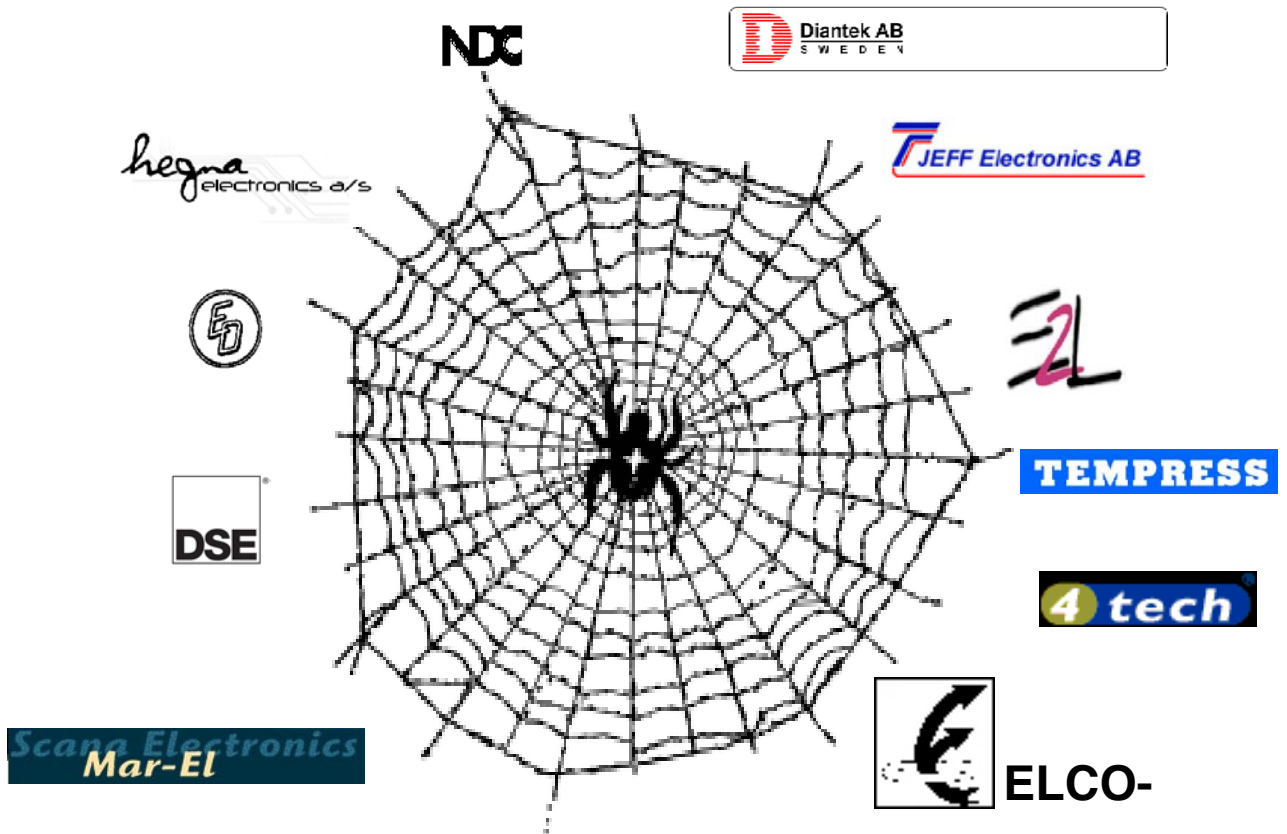


IMSAB COMPONENT GUIDE for industry and shipping



Neptune-CPP propulsion control system



NEPTUNE-CPP PROPULSION CONTROL SY.

Optimal control and protection of the propulsion system

from Mar-EI AS



- **Control of Propeller pitch, Main engine RPM, Clutch.**
- **Up to eight manoeuvre stands**
- **Graphic display with pitch indication, operation information and messages on all control stations.**
- **Extensive guiding and warning system via the graphic display.**
- **Speed setting output to all common governor makes and types.**
- **Back-up system for propeller pitch from push-buttons on the main panel.**
- **System set-up, diagnostics and service via user-friendly Windows program.**
- **Most common options:**
 - Automatic load control system.**
 - Pitch reductions (analogue and/or fixed).**
 - Mode for shaft generator.**
 - Interface to Marco-IV joystick-system.**
 - Interface to DP-system.**

Electronic propulsion control system for CP-propellers. Available in simplex and duplex version.

Main features:

- * Control of (pr. side): Propeller pitch, Main engine RPM, Clutch.
- * Up to eight manoeuvre stands: Main panel bridge, with combinatory lever (separate order levers for pitch and RPM optional).

- Two slave panels bridge, with combinatory lever (separate order levers for pitch and RPM optional).
- Engine control room (ECR) panel, with separate order-potentiometers for pitch and RPM.
- Responsibility shift system with shifting by identical lever positions between main and slave panels.
- Responsibility shift system with shifting by acknowledging push buttons between main and ECR panel.
- Very easy adoption of additional manoeuvre stands.
- Portable slave panels available.
- Serial communications between main computer and manoeuvre stands, i.e. very few cables.

- * Graphic display with pitch indication, operation information and messages on all control stations.
- * Extensive guiding and warning system via the graphic display.
- * Speed setting output to all common governor makes and types.
- * Back-up system for propeller pitch from push-buttons on the main panel.
- * System set-up, diagnostics and service via user-friendly Windows program.

Duplex systems have the system for starboard and port identical and galvanic ally isolated from each other. If not mentioned specifically, the following description is valid for one side (one system).

GENERAL

The system is designed to "fail safe" concept, and is as far as possible built up with a level of redundancy. It has built-in possibilities that makes the system very flexible and highly accurate.

The system consists of one to eight control stations. The cabinet normally mounted easily accessible on the bridge or in the engine control room. All peripheral units and external equipment are connected to the terminal blocks.

The control stations are of Neptune standard type with combinatory lever/order potentiometers, indicators for pitch and necessary lights and push-buttons. See panel layouts for details.

All control stations include a graphic display. During normal operation are important operating information like propeller pitch, running mode etc. shown. Operation guiding like reason for not being able to engage the clutch is given, e.g. 'Propeller pitch not in neutral'. In case of malfunctions or unwanted situations are warnings and error messages shown.

The system is powered from two separate independent 24V DC supplies pr. side. The system operating voltage is galvanic ally shielded from the power supplies.

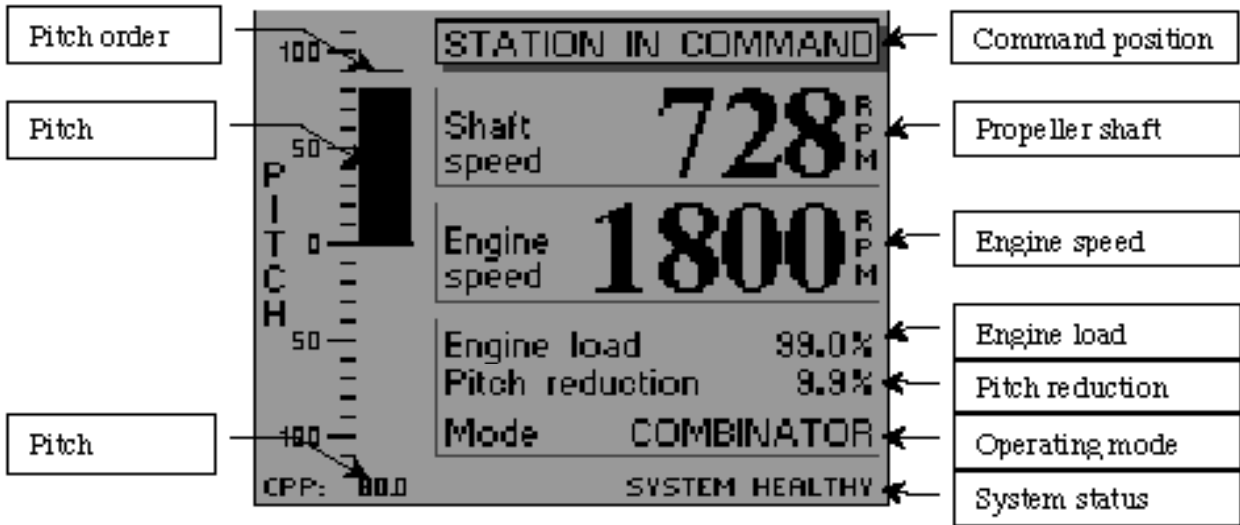
The system has the following alarm outputs:

- * Voltage and System failure, potential-free NC contact.

The following units are included:

Unit	Mounted where
MEPU	Easily accessible on the bridge or in the engine control room
Manoeuvre panel	Bridge console / ECR
Pitch actuator	Gear





I/P-converter (option) Near main engine, not directly on

Fuel sensor (option) Main engine
Initiator (option) Propeller shaft

All cable connections to be done by installation company.

3 sets of documentation are included. Consisting of system drawings and descriptions.

Main engine RPM/Interface Clutch.

Automatic load control system.
Pitch reductions (analogue and/or fixed).
Mode for shaft generator.
Interface to joystick-system.
Interface to DP-system.

ORDERING INSTRUCTIONS

Neptune At request, please specify your data as:
Control of (pr. side):
Propeller pitch/Interface

